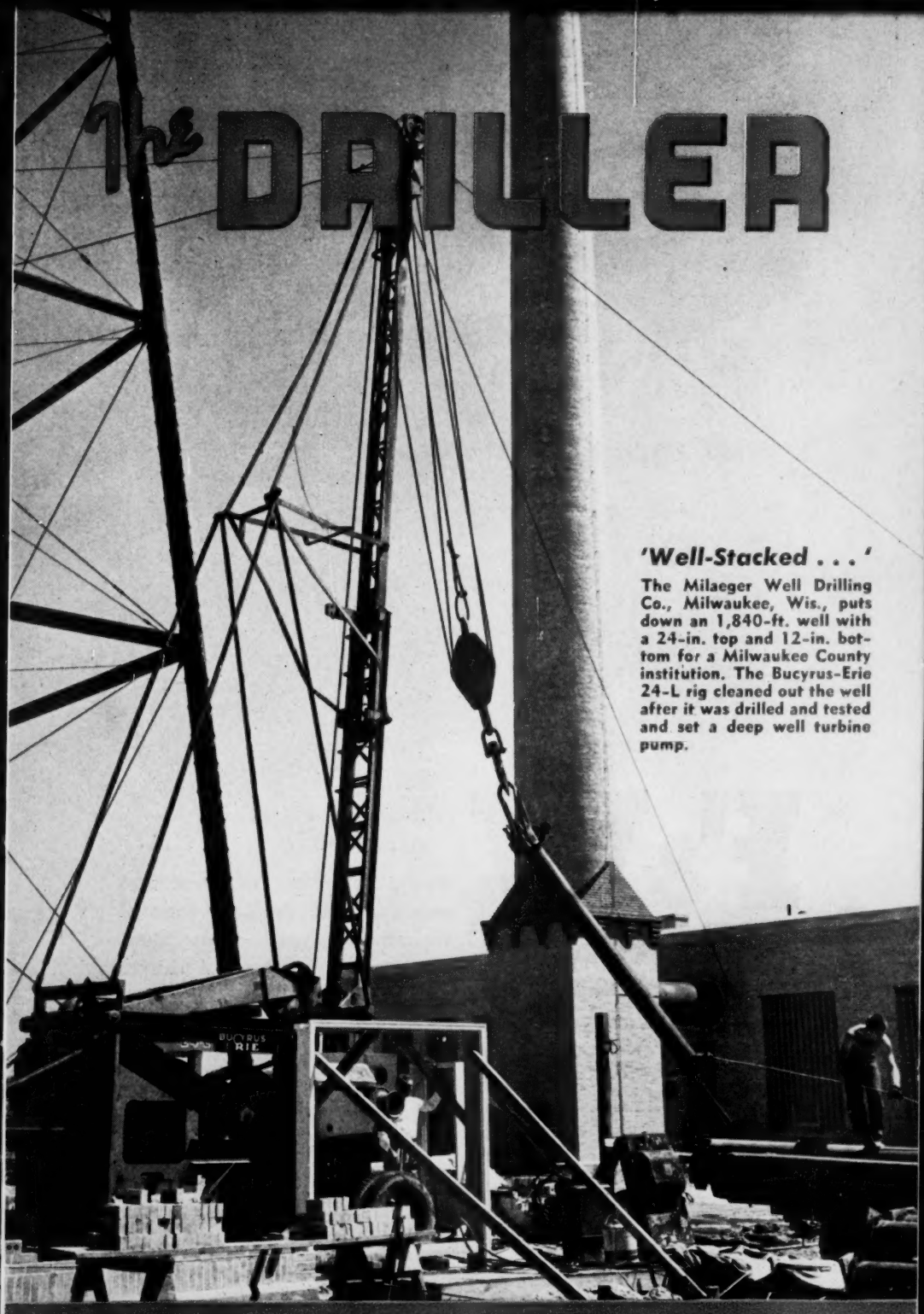
The DRILLER



'Well-Stacked . . .'

The Milaeger Well Drilling Co., Milwaukee, Wis., puts down an 1,840-ft. well with a 24-in. top and 12-in. bottom for a Milwaukee County institution. The Bucyrus-Erie 24-L rig cleaned out the well after it was drilled and tested and set a deep well turbine pump.

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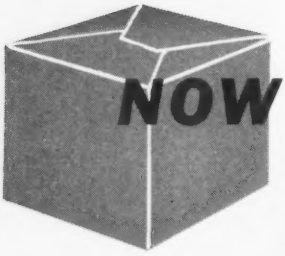
VOLUME 23 NOVEMBER, 1949 NUMBER 11



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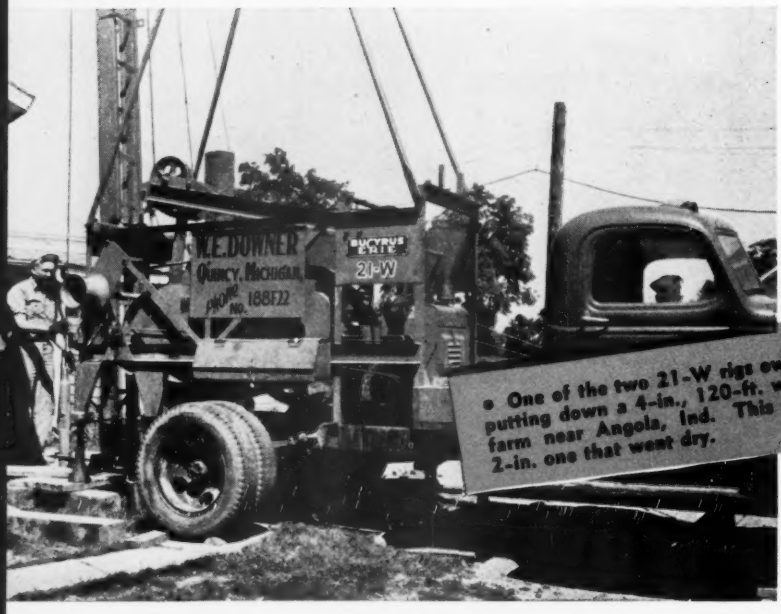


• One of the two 21-W rigs owned by Downer putting down a 4-in., 120-ft. well on a poultry farm near Angola, Ind. This well replaced a 2-in. one that went dry.

Increased Water Demands Mean Bigger Wells

By A. E. Holden

• Employing trailer-mounted tanks, a helper services fountain waterers on the feeding range of an Indiana turkey farm. The central water supply source is a 6-in., 90-ft. well.

In the Tri-State area composed of south central Michigan, northeastern Indiana, and northwestern Ohio, the sound business policies and constructive well drilling operations of driller W. E. Downer have aided farmers immeasurably in solving the new problems of an adequate water supply on the modern farm.

A WATER system that will provide a wholesome supply for family use, prove serviceable for farm purposes, be as nearly permanent as may be made, and cost as little as possible is one of the principal utility problems of the average farmer today. Millions of farms and rural homes, located beyond city water mains, are now equipped with running water. Millions of others either are not equipped at all or are inadequately equipped for getting all the benefits of running water. Wallace E. Downer, well driller of Quincy, Mich., realizes this need for an adequate water supply on the modern farm, and conducts his business accordingly.

Downer keeps two Bucyrus-Erie 21-W rigs busy doing farm jobs almost exclusively. He believes most emphatically that this results from his firm stand in adopting and living up to the policy of drilling only 4-in. wells or larger on farms. While Downer's program meets with some opposition on the part of farmers unfamiliar with the modern need, salesmanship and the example of other successful wells in the area have usually overcome such sales resistance.

Here are the logical reasons Downer gives for his revolutionary policy:

First of all, higher standards of living on farms are everywhere creating new and increased demands for water. The average, small American farm of 25 years ago usually consisted of a team of horses, four or five cows, and a few chickens, sheep and hogs. A 2-in. well furnished an adequate supply of water to meet the farmer's daily needs.

Daily Water Needs Greater Today

Today, however, the same farmer often finds his well will not supply enough water for his dairy cows, now numbering from 20 to 50 milchers (heifers not included), for 50 to 300 hogs, a flock of 250 to 1,000 hens, besides the vastly increased uses of water for the bath, the kitchen, the laundry, and for fire prevention. Downer maintains that only a brief explanation is needed, when that old 2-in. well plays out, to convince a potential farm customer that a 4-in.

• Lime deposits corrode the well screens in many sections of the Tri-State area. Results like this often stop the flow of water completely as screen openings are closed.

well will more closely meet his daily water needs.

"When you point out to the average farmer that his water requirements today are at least six to ten times greater than they were 25 years ago," Downer said, "few ever hesitate to accept the long term, more economical, more efficient 4-in. well that you recommend."

The second point in Downer's sales program concerns the lowering of the water table in the area in which he operates. Drillers there have been forced to go down deeper and deeper before reaching a suitable water-bearing bed. As a result, Downer tells the potential farm customer that he can expect to get only a limited volume of water through the small diameter pipes and screens used in smaller wells.

Stresses Well Capacity

A third convincing sales point, used by Downer, refers to well capacity. A water system on the farm must be capable of meeting *daily* demands. Nevertheless, a simple fact, sometimes overlooked, is that no pump can get water out of a well faster than the water flows into the well. Thus, as Downer points out, if a pump must work overtime to keep a storage tank full and pressure up, the small, 2-in. well simply does not supply enough water for the farm.

The fourth sales building factor, employed by Downer, is to cooperate closely with the local power supplier. Private power companies and Rural Electrification Cooperatives are adding power connections in rural areas at the rate of over 700,000 per year. Officials of these utilities have the farmer's interest at heart, practically placing the tools for running water at the front steps of those who have been pumping water by hand. By convincing these officials that the 4-in. well means better living in the home and better profits on the farm, Downer has found that their recommendations have gone far toward turning the sale for 4-in. jobs.

This policy or program has worked well in Downer's operating territory, which embraces the Tri-State section of Indiana, Michigan, and Ohio. He put down more than 12 major wells in Steuben County, Ind., last year. On one of these jobs he drilled a 6-in. well; on another he installed an electric turbine pump with a capacity of 3,000 gph.

• With a Bucyrus-Erie 21-W rig, Downer begins drilling the 4-in. well desired by an Indiana poultry farmer for watering the 12,000 broilers he raises at a time.

Drills Well On Turkey Ranch

The latter job was a 6-in. well, 90 feet deep, on the Enos Parsell turkey farm at Angola. Parsell had a flock of 8,000 turkeys which required a large amount of clean water daily. In landing the job, Downer had pointed out that it would be more economical for Parsell to pump his maximum daily requirements within a 1-hour period than to spread the operation over several shorter periods throughout the day, thus saving unnecessary wear on the pump.

Of course, the capacity of any new well would have to be adequate to meet these daily needs. With his 6-incher, Parsell can now haul water in trailer mounted tanks from his central supply source to the turkeys' feeding range.

Getting back to the factor of *service*, Downer made mention of one of the most serious problems confronting the farmers in many sections of the Tri-State area — lime deposits corroding well screens. These destructive elements cause untold damage to rural wells each year. They clog the screens, first reducing the supply of water passing through, and finally stopping the flow completely as the screen openings are closed. Then, the screen has to be pulled and replaced. In some sections of this area, the operation has to be done each year.

Avoids Corroded Screens

Downer uses this problem as another argument in favor of the 4-in. well for farms located in the areas in which such a condition prevails. The Michigan driller points out that the aggravating condition can be cleared up in many instances and greatly relieved in nearly all localities. Obviously, this gives him an excellent opportunity to show the farmer *how* he can eliminate the costly expense of replacing a clogged screen, or trying to have it cleaned in the ground. His solution is to drill a 4-in. well, and use an open end, gravel-pack method in place of a screen. There are some instances, Downer admits, where underground formations make it necessary to use the conventional screen, and nothing else.

Downer has fitted most of the 4- and 6-in. wells he has drilled in the Indiana Section (Steuben County) with jet-type pumps. The majority of them have a capacity of 750 gph,

• This well, being drilled on the "Five-Acre" truck farm near Angola, Ind., was to be used for irrigation purposes. This 6-in. job went down 47 feet to an abundant supply of water.

although he did install the 3,000 gph pump noted above, and one with a capacity of 100 gpm for irrigating a small, 5-acre truck farm.

While the water table varies, a good vein of water was found on one farm at 72 feet. In drilling another well, good ground water was hit at 67 feet. This was a pleasant surprise for the customer, who had expected a more expensive job, and he never ceased telling his friends about the result.

Another 6-in. job, drilled early this year, went down 47 feet to an abundant supply of water. This well is located on the "Five-Acre" truck farm near Angola, and is used for irrigation purposes. In July he put down a 4-in., 120-ft. well on the Fen-

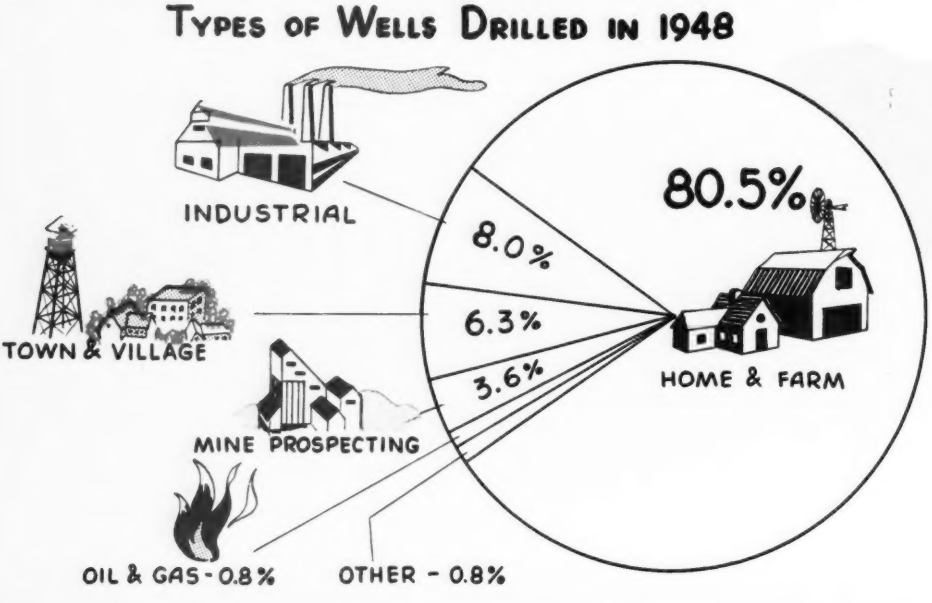
(Continued on page 27)

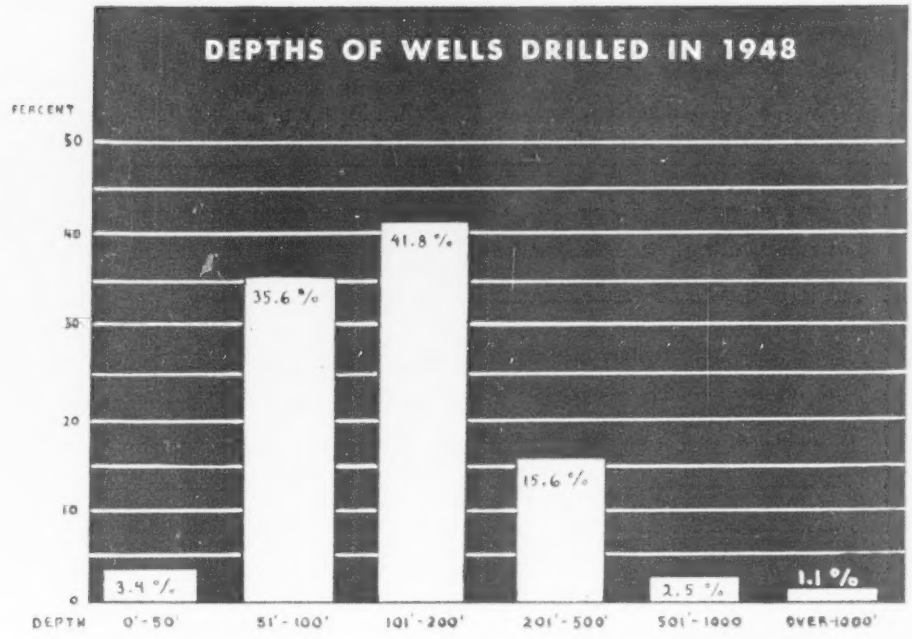
Report From the Nation's Water Well Drillers

Do you know that an estimated total of 314,467 wells were drilled by readers of The Driller **in 1948? Did you realize that the estimated total wells expected for 1949 is even higher — 328,644? Are you aware that water well drilling contractors are estimated to have handled 126,302 pump installations in 1948? These and other interesting facts were brought to light recently as results of a nationwide survey, conducted by** The Driller, **were tabulated.**

IN the interests of obtaining an accurate, nation-wide estimate of the size and scope of the water well drilling industry, last May we wrote to each of the 5,850 drilling contractors who read our publication, asking them to answer a series of questions regarding their business. This survey was the third undertaken by *The Driller,* the first having been conducted in 1933 and the second in 1939. The questions asked were such that the answers given can safely serve as the basis for an accurate picture of the industry as a whole.

The 5,850 questionnaires mailed accounted for complete coverage of the home and farm, industrial, jetting, and rotary well drilling contractors on *The Driller's* domestic circulation list as of May 12, 1949. Questionnaires which were returned blank or only sparsely filled-in, and returns from drillers just beginning





or resuming operations, were not included in the survey tabulation. A geographical summary of the replies received showed that the returns closely follow the general pattern of *The Driller's* circulation, indicating a balanced representation of the entire circulation.

A total of 957 replies, representing a response of 16.4%, was received. These replies were carefully analyzed, and final tabulations were based on 733 questionnaires after setting aside 224 replies as incomplete. The 733 questionnaires used represent a 12½% cross-section of the entire survey mailing, considerably above the 5% return usually considered good for a questionnaire of this type.

We wish to express our thanks to those drillers who cooperated so beautifully with us, taking time to fill out and to return the questionnaire. Much of the information gathered through the findings of this survey is certainly not available outside the water well drilling industry itself. You drilling contractors are the backbone of the industry and your help was definitely needed to collect this valuable data.

Averages and totals established by this survey will be published in this and future issues of *The Driller*, giving you a definite guide to activities in the industry. Important trends which may add dollars to your earning power are revealed in some instances by this market study. Total drilling statistics, pump installations, equipment purchases, etc., for *The Driller's* entire readership were obtained by taking the average of the answers reported for each question and projecting them to the 6,444 readers (classified as home and farm, industrial, jetting, and rotary water well drilling contractors) on our

(Continued on page 24)

The DRILLER

A JOURNAL FOR WATER WELL DRILLERS

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Successful Wells Irrigate Formerly Dry Oregon Area

YONNA VALLEY, located approximately 15 miles east of Klamath Falls, Ore., has recently been the scene of an extensive well-drilling program, according to a report by J. D. Meyers in the monthly water bulletin of the U. S. Geological Survey for August. A number of successful wells have been completed, Meyers indicated, and now are being used as a source of water for irrigation.

Prior to 1942, when the first irrigation well was reportedly drilled in this area, the valley was used for grazing and dry farming. As of July, 1949, the bulletin stated, about 22 wells were reported to have been completed. One of the new wells, it is claimed, yields 3,500 gpm with seven feet of drawdown. This well is 20 inches in diameter, 191 feet deep, and taps scoriaceous basalt. The average yield of pumped irrigation wells in the valley, according to Meyers' report, is about 1,500 gpm. After two seasons of pumping, these wells have shown little change in static water level.

Low Water Levels In New England

DROUGHT conditions in the northeastern states continued unabated in August, according to the monthly *Water Resources Review* of the U. S. Geological Survey. Stream flow at six index gaging stations was the lowest ever recorded for the month. Ground-water levels were also reported near record low at several locations in New England.

Maine was especially hard hit by the drought. Flow of nearly all Maine streams, the bulletin reports, was record-low for August as a result of low antecedent runoff and deficient precipitation throughout the month. Ground-water levels were low, and many wells dried up.

In central New England, the bulletin continued, ground-water levels in observation wells declined during August and at month-end had either reached levels lower than the previous August minimums or were slightly above the previous lows.

Excessive stream flow occurred in the Southeastern states, in part as a result of a tropical hurricane that crossed the coastal states on August 26-28.

The water-supply picture in the West was dominated by more-than-seasonal recessions in water levels

(Continued on page 27)

Use

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Fig. 142 3-Cutter Underreamer Collapsed (Left)

Cutters Expanded

See cutter views (left). Collapsed for "free and easy" in-and-out of hole. Expanded for under-reaming operation. No jarring into casing . . no broken cutters.

Body made from 1-SOLID forging . . . no sub to unscrew. Hard surfaced cutting edges. All parts of PREMIUM-grade steel . . . correctly heat-treated . . . for maximum field service.

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Fig. 142 featured above is one of 78 Acme TRUSTWORTHY Cable Tools shown in new Catalog for Water Well Drillers.

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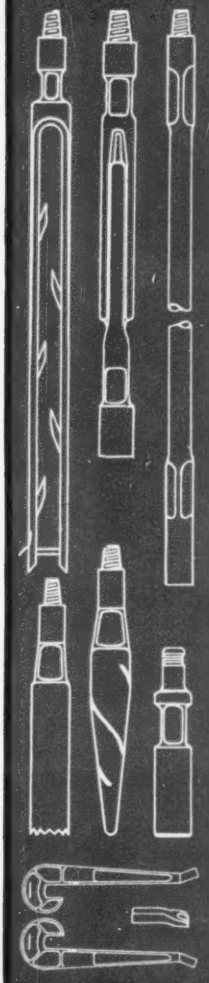

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Tips For Tax Savings

• Few drillers consider the income tax as a year-round problem.

By Harold J. Ashe

WHILE well drillers may lament the burden of individual income tax bills, few consider the income tax as a year-round problem. They feel there is nothing they can do to reduce their tax, so they push the problem to one side until the time to file a return arrives.

Usually, there is something drillers can do about their tax assessments, provided they keep income taxation in mind throughout the year, and particularly if they review all pertinent facts prior to year-end.

It cannot be too strongly emphasized, however, that after the contractor closes his books of account on December 31, the die is cast. It is then too late to control, even in a small degree, the facts on which the return must be made.

Prior to December 31, the driller may have several alternatives for saving on income taxes. These are alternatives to which large taxpayers are constantly alert.

Consider first the situation where the driller has worn-out equipment or rolling stock which has not been fully depreciated. If such assets are sold before year-end for their salvage or scrap value, the loss may be writ-

Here's a detailed account by a tax counselor pointing out to interested drillers what they can do to lower income tax assessments by acting before the end of the year.

ten off and reduce the tax. The loss will be the difference between the value yet to be recovered through depreciation and the salvage value received.

The above, as with other proposals made here, is especially sound if it is expected that the current year's income will be higher than the subsequent year in which, otherwise, the sale might be made. The reason: higher income tax brackets make for higher tax savings.

Estimate Taxable Income

Few drillers can predict with any degree of exactness what their adjusted gross income will be in subsequent years. However, to the extent they can approximate future taxable income, to that extent they can determine to take or pass certain tax saving opportunities presented them.

Even where taxable income is likely to be substantially the same in both the current and ensuing year, it may be wise to take tax advantages in the current year. This effects a tax saving immediately, making cash available sooner. Even if it appears the driller will be in the same tax brackets both years, the earlier year now ending is an actuality; in 1950 anything may happen to sharply reduce income, such as unexpected casualty losses.

The contractor should give serious consideration to rebuilding the value of depreciable assets not only to keep his equipment abreast of the times and his competition, but for purposes of depreciation write-offs. A driller may have highly inflated earnings because, temporarily at least, he is operating with worn-out equipment which no longer has any depreciation left as a charge against the business.

Some drillers may view such a situation as highly favorable. While absence of depreciation write-offs increases the amount of the income tax, a considerable added profit is left from this higher net income. However, such a high profit situation will not continue indefinitely. Eventually, such worn out equipment becomes obsolete, no longer serves its purpose economically and cannot compete with other drillers' equipment. Finally, this will express itself in sharply decreased profits.

If depreciation reserves have not previously been set aside — and this writer does not know of many drillers who do so — the driller will suddenly realize one day that he has no funds with which to replace broken-down rigs and other equipment.

If he does have reserves, he should at some point start reinvesting this money in new equipment, both from the standpoint of sound management and because of the tax-savings implicit in such new acquisitions.

Depreciation Deductible

In replacing fully depreciated equipment the driller, in a left-handed manner, gains a tax credit which, in effect, makes it possible to acquire such equipment at considerably less than its purchase price. Example: $5,000 worth of new equipment with a 10-year useful life can be written off at the rate of $450 a year ($5,000 less, say, $500 scrap value at the end of useful life). This new write-off in depreciation reduces the net profit by exactly $450 a year in the tax return. If the taxpayer is in the 34% (less 1948 reduction) bracket, the tax will be reduced by $134.60.

Newly-acquired depreciable assets replacing fully depreciated assets reduce the artificially high income and the tax. At the same time they revitalize the driller's business and rebuild the physical assets which may have been slipping downhill.

Acquisition of new equipment will

(Continued on page 18)

NEWS OF THE MONTH

Wash. Drillers Plan Meeting

THE fourth annual convention of the Washington State Well Drillers' Association, Inc., will be held in Yakima, Wash., November 11 and 12, according to Secretary O. E. Erdman. Convention headquarters will be the Donnelly Hotel.

The convention program was not complete at this writing. Erdman indicated, however, that Spang & Co., Butler, Pa., would give a demonstration on the heating of bits for dressing and tempering. Erdman has extended an invitation to all drillers, interested manufacturers, and supply houses to attend the convention.

N. C. Holds Fourth Annual Convention

WITH a registration of 60 drillers, technical men and manufacturers' representatives, the North Carolina Well Drillers' Association held its fourth annual convention at the Hotel Sheraton, High Point, September 23 and 24.

The general theme of the meeting centered around the question of costs, record keeping, and more businesslike methods in the well drilling industry. At the convention dinner, held on Friday evening, Sept. 23, in the hotel ballroom, Dr. D. D. Carroll, Dean of the School of Commerce at the University of North Carolina, spoke to the assembled drillers on good business methods.

The business meetings on Saturday followed the same pattern. In the morning there was a general discussion among the drillers as to drilling methods, costs, and cost accounting. F. J. Spang of Spang & Co. spoke on the idea of creating a cost accounting sheet. In the afternoon, William H. Neal, senior vice-president of the Wachovia Bank and Trust Co., Winston-Salem, N. C., presented a talk on good business methods and general economic trends.

Other speakers included R. E. Faw, Hickory, N. C., driller, who made a report on the installation and operation of a heat pump he now uses, and Harry LeGrande, U. S. Geological Survey, who spoke about the general soil formations in North Carolina. R. R. Storm, NWWA secretary, reported on the activities of that organization and the North Carolina group elected to become a member.

Elected to office for 1949 were W. A. Kirkley, Charlotte, president; N. Salley, Hickory, vice-president; and R. O. Heater, Raleigh, secretary-treasurer. New directors are B. A. Styer, Winston-Salem, and F. L. Smith, Burlington. They will serve with holdover directors P. Y. Bainbridge, Guilford, and G. T. Shipman, Penrose.

November Program For Colo. Ass'n

THE Colorado Water Well Drillers' Association will hold its annual meeting in the Shirley Savoy Hotel in Denver, November 3, 4, and 5. According to W. E. Code, secretary, there will be equipment displays by state jobbers and suppliers for the first time, including out-of-doors demonstrations of drilling rigs and other large equipment.

Besides the regular business meet-

ing, the convention program will include several technical discussions on the 4th and 5th. One, led by Carl Rohwer, will treat the subject of the testing of well screens. Others will refer to the installation of water systems with copper pipes, and the hydraulics of pumps. Several films on industrial subjects will also be shown.

Oklahoma Sets December Dates

THE Board of Directors of the Oklahoma Water Well Drillers' Association, meeting on September 8 at the State Department of Health, set the dates for the Fall meeting of the Association. The convention will be held December 9 and 10 at the Extension Study Center of Oklahoma University, Norman, Okla.

A feature of the meeting will be an equipment display. A program committee has also been appointed and is engaged in preparing the 2-day program which will be announced later.

Other features of the meeting include the election of officers for the coming year, and a banquet and entertainment on the evening of the 9th.

Issue Pipe Bulletin

THE publication of a new bulletin, dealing with Taylor Spiral-Weld pipe, has been announced by Taylor Forge & Pipe Works, Chicago, Ill. This bulletin shows the sizes and wall thicknesses of pipe now available and also shows Taylor Forge fittings and flanges which are intended for use with the pipe.

Further information concerning this bulletin can be obtained by writing to the manufacturer at P. O. Box 485, Chicago 90, Ill.

Minn., Ia. Organize

DRILLERS residing in southern Minnesota and northern Iowa recently organized a local association at a meeting held in the offices of the Albert Lea Pipe and Supply Co., Albert Lea, Minn. Officers elected by the new group are: Keith M. Brown, Fairmont, Minn., president; Lloyd Holtz, Albert Lea, vice-president; and Ervin Halvorson, Rake, Iowa, secretary-treasurer.

Fla. City To Get Well

CITY Commissioner C. C. Booker, Wildwood, Florida, announced recently at a special council meeting that arrangements have been completed for drilling a new 10-inch municipal well in Wildwood. According to Booker, chairman of the

(Continued on page 17)

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FROM THE MAILBAG

This page is open to any of our readers having questions to ask relating to drilling, driving pipe, dressing bits, etc. All letters will be answered promptly by experienced drillers and engineers who are qualified to give intelligent advice on these subjects. We will publish as many letters of general interest as space will permit. Address: The Driller, South Milwaukee, Wis.

Drilling In Quicksand

Dear Sir:

What is the best method for keeping sand from coming up into the well casing when drilling in loose sand and gravel or in quicksand? This sand is very fine and comes into the hole when we are bailing out.

Too, what is the best way to drill in quicksand in which there is water? The quicksand comes up in the casing.

M. H. Oregon

In driving pipe through heaving sand, it is usually difficult to drill out the plug or get the tools down to the bottom of the pipe before the sand heaves. The more sand bailed out the tighter the pipe becomes bound by the sand flowing toward the hole and the more difficult driving becomes. Eventually, the sand packs around the pipe with accumulated friction until driving fails to move the pipe further.

This condition can be best avoided and the pipe driven easily if Aquagel, a processed bentonite, is used to mud-up the sand and lubricate the pipe for driving.

Aquagel is a product of the Baroid Sales Division of the National Lead Co., and is obtainable from their distributors in the principal cities of the United States. Generally all oil supply houses handle it as it is used extensively in oil drilling where rotary equipment is used to mud-up the hole.

How To Use Aquagel

Aquagel is mixed with water to a light consistency so that it will pour freely into the hole on top of the packed sand. At the same time some of the Aquagel of a heavier mixture should be packed into the water channels of the bit before running the tools. If this is done, you should be able to drill out the plug, although it may take a while to get started, that is, until the Aquagel and packed sand get mixed freely so that the tools will penetrate it and permit the sludge to be bailed out.

After the plug is drilled out, the Aquagel should hold the walls of the hole to permit drilling below the

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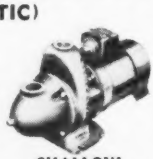
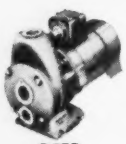


SHALLOW WELL

AURORA-JET WATER SYSTEMS



DEEP WELL Sizes to 2,000 G.P.H.

— for watering feeder stock, hogs, dairy herd, milk coolers, irrigation, implement and car washing—AND—for laundry, dishwashing, baths, garden watering—AND—strong emergency streams for Fire Protection. EASY TO CONVERT SHALLOW TO DEEP WELL.

Write for Descriptions

AURORA Always PUMPS

AURORA PUMP COMPANY

58 Loucks St., Aurora, Illinois

pipe and you should then be able to drive the pipe more freely. It may go slow at first, but, after you get started, you will probably be able to drive the pipe down to the desired depth. Care must be taken, of course, not to drive the collars over the thread in the top coupling, which can easily happen in hard driving.

News . . .

(Continued from page 15)

water committee, the Grey Well and Pump Co., Jacksonville, was the successful bidder on the contract.

The new well will be approximately 420 feet deep, and will be powered by dual control pumps. It is expected to have a pumping capacity of 500 gpm. The city's present well, an eight-incher less than 200 feet deep, is over 40 years old.

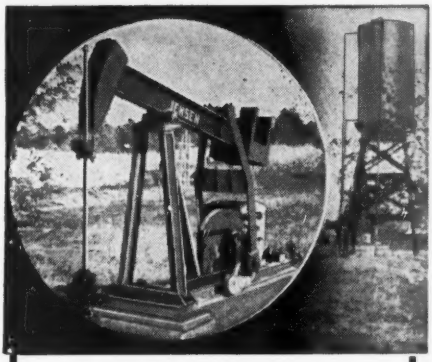
Fatally Burned

The death of Emil Hanson, 64, a driller from Climax, Minnesota, was reported recently. Hanson was fatally burned when the gasoline he was using to fill an engine on his rig ignited. The mishap occurred on a job at Crookston, Minnesota.

Trupar Names H. Hix Wolfe

THE appointment of H. Hix Wolfe as assistant general manager has been announced by Trupar, Inc., Dayton, Ohio. Wolfe will have full supervision of all manufacturing research and engineering development and complete charge of production of the company's products.

Wolfe was formerly associated with the Dayton Pump and Manufactur-



Pump Handle Pete Says:

Experience is a great teacher

—yours and Jensen's

When you've finished drilling the well there's still more to do: you must be able to recommend the proper pumping equipment. In many of these cases Jensen is the RIGHT equipment, as you can promptly see from a piece of our FREE illustrated literature.

We urge you to write for facts and figures on Jensen economy, dependability, and convenience so you can apply your experience along with Jensen's to get the right pumping equipment over every well. A penny post card addressed to 1016 Fourteenth Street, Coffeyville, Kansas will bring you FREE literature by return mail. Invest a penny wisely today.

JENSEN

BROTHERS MFG. CO.

COFFEYVILLE, KANSAS, U.S.A.

ing Co., Dayton, Ohio, for 20 years as development engineer, working with sales in the field, and later as chief engineer. He resigned in Nov., 1948. Prior to this time he was connected with the National Pump Co. of Dayton.

Tax Savings . . .

(Continued from page 13)

not permit substantial write-offs in the current year, if acquired late in 1949. It will ensure a full year's write-off each year starting in 1950.

As year-end approaches, the driller may weigh the tax saving possibilities in having repairs made, rather than postponing until the new year. Repairs, however, should not be confused with alterations or additions, such as he might make to a shop. Repairs to a truck or, if used in business, a car are fully deductible in the year they are done and paid.

If the driller has as little as $500 of taxable income in the 26% (less 1948 reduction) bracket, a $500 repair bill paid in 1949 will reduce 1949 tax bill by $114. In effect, the contractor pays $386 and, indirectly, the government pays $114, the amount of the tax saving.

Reporting in the business schedule of the tax return on the cash receipts and disbursements basis, the contractor should make a point of paying all outstanding bills that will increase his reported operating expenses and, thus, reduce his reported net income. Allowing current or past due bills to drag into the following year before payment is made *increases the net profit on which a tax is assessed by the exact amount of such bills.* Ignore, for example, $150 worth of utility, telephone and other bills, and the contractor will find he has — so far as his income tax return is concerned — an added $150 in net profits. In fact, he will not have this added profit, as the bills must still be met, but he will have an added $24 in taxes, even if in the lowest tax bracket exclusively.

This will indicate just a few of the possibilities afforded drillers who are awake to income tax implications of their business.

Larger tax savings can frequently be made by drillers in their personal deductions and exemptions. Personal deductions and exemptions have as important a bearing on the driller's take-home earnings, after income taxes, as do business deductions. They should have equally careful consideration.

Exemption For Dependents

A driller may lose out because the amount of support given a dependent does not qualify under the law. A case in point. Two sons share equally in supporting an aged father, entirely dependent on them. Each son gives his father *exactly* 50% of the support. Neither son can claim the father as a dependent. To qualify as a dependent, the father must receive *more than half* of his support from the taxpayer counting him as a dependent. Solution: one year one son contributes *more than* half of the support, and takes the exemption. The following year the other son contributes *more than half* of the support and, in turn, claims the exemption. Such an exemption is worth about $100 in tax savings in the lowest tax bracket.

Personal deductions need careful study before year-end. It may be profitable tax-wise to alternate between taking the standard deduction one year (or using the short form if income is under $5,000) and report actual deductions on the long form the next year.

When the taxpayer does not elect to itemize his personal deductions he is allowed approximately 10% for

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Only A. O. Smith makes all major parts of vertical turbine pumps—your assurance of unsurpassed quality control, precision fitting, years of dependable low-cost service, and one source of undivided responsibility.

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MAXIMUM ADAPTABILITY. SMITHway Pumps are available with SMITHway Vertical Hollow Shaft Electric Motors, flat pulley or V-belt pulley, and right-angle gear drive. You can choose either water or oil lubrication.

STEEL WHERE STEEL BELONGS. Discharge-head assemblies of SMITHway Pumps are heavy *steel plate,* formed and welded into the strongest, most compact design. Driver support is rigid, vibrationless, yet easily accessible. In the heavy, cast-iron, precision-machined bowls, either semi-open or enclosed type bronze impellers are available.

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such deductions on the short form and on the long form is allowed a like amount up to $1,000 maximum. Thus, taxpayers are allowed an amount for personal deductions far in excess of what they may have paid.

If personal deductions aggregate more than 10% it is to the taxpayer's advantage to itemize and deduct them. Sometimes the taxpayer may deliberately elect before year-end which form will be most advantageous, and *make it more advantageous by certain pre-year-end acts of his.*

Utilize Both Forms

Before year-end he may crowd a maximum amount of personal deductions into the year, effecting tax savings in that year by itemizing personal deductions. This may reduce to a minimum the amount of personal deductions in the following year. However, in the ensuing year with, perhaps, only 5% in deductions available, use of the standard deduction will still effect a normal 10% saving. As the taxpayer exceeds the 10% in one year without losing the 10% in the following year, the combined savings for two years by alternating represents a clear tax advantage.

Suppose a taxpayer before year-end calculates his deductions (contributions, interest, taxes, losses from casualties or theft, medical-dental expenses, non-business bad debts, etc.) will aggregate about 10% of adjusted gross income. Regardless of whether he itemizes his deductions or takes the standard deduction, the tax will be about the same. That's how matters stand on December 15.

However, this driller is alert to tax savings in alternating between itemizing deductions one year, taking standard deduction the next year.

A review of deductible items show he has pledged $50 to a charity, which he had intended paying in 1950. He pays this before year-end 1949. Now deductions are $50 above the break-even point.

Pay Non-Business Taxes

Some non-business taxes, in the amount of $150, are due. He pays these before year-end 1949.

Medical-dental and hospital bills already paid total a sum equivalent to 5% of adjusted gross income. (This 5% is not deductible; should not be counted in calculating the deduction totals). Additional medical bills above this amount are deductible. He pays a $100 doctor bill, wipes out a prescription and vitamin bill.

A dependent daughter has postponed dental work. He elects to have this done before year-end, pays for it before Dec. 31, 1949. Altogether he picks up $200 in medical-dental deductions. Had he not done this the 5% exclusion clause would have nullified, probably, both year's expenses.

Extra Work Pays Off

By crowding a maximum amount of personal deductions into 1949, this driller has about 20% in personal deductions for 1949. Regardless of what his 1950 deductions may be, he will be entitled to the standard 10% deduction at the least in 1950. If he had ignored these tax implications, he would have had only 10% allowance for deductions in each year.

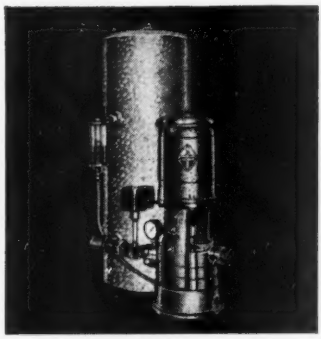
Tax saving opportunities involve extra work before year-end and include rather close estimating of what the year's adjusted gross income will be. Nevertheless, it may be a profitable employment of the driller's time. It can be more remunerative than any other business activity during the year, time weighed against tax savings made.

Now-no well too deep for . . .

Jacuzzi

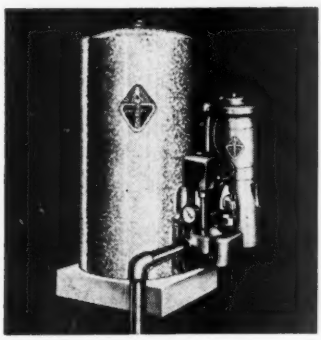
INJECTOR-TYPE PUMPS AND WATER SYSTEMS

NOW your customers with DEEP as well as shallow wells can cash in on the low-cost, trouble-free performance of a Jacuzzi Jet Pump. Already on thousands of farms across the nation, the new Jacuzzi Jet pumps are rolling up records for efficiency and economy on wells to 200, 300, 400 — even 600 feet. And to meet demand, Jacuzzi has stepped up production . . . opened new factory branches to bring you faster, local service from coast to coast.



FOR DEPTHS TO 600', Jacuzzi selective stage discharge injector-type pumps with capacities to 13,000 gallons per hour.

FOR DEPTHS TO 40' AND GREATER, Jacuzzi Speedi-Prime injector-type pumps and water systems with capacities to 2400 gallons per hour.



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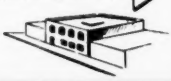

Originators and world's largest manufacturers of injector-type pumps.

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JACUZZI BROS. INC.

The Driller & The Law

Delay of Well Completion

DOES mere breach of contract by a well contractor to complete a job by a certain time prevent his collecting the full price, if the owner is not injured by the delay? That question was answered negatively by the Nebraska Supreme Court in a decision rendered April 14, 1949, in the case of *Western Land Roller Co.* v. *Schumacher et al*, 36 N. W. 2d 777. The decision rests upon an A. B. C. rule of law that before one can collect damages for breach of any kind of contract he must show that he has been actually damaged.

The plaintiff company sued to enforce a mechanic's lien, under the laws of Nebraska, for drilling a well to be used for irrigation purposes. The defendant unsuccessfully demanded that there be offset against the balance due on the contract price for drilling the well an award of damages to the defendant, on account of delay in completion of the well.

Contract Terms

The lawsuit involved the effect of this clause in the drilling contract: "The Seller agrees to begin drilling the well on or before May 25 and complete the Well and install the Pump as quickly as possible."

The contract was made after a test well had been sunk and had indicated that a hydraulic drill should be used. The landowner knew that the driller intended to use such an outfit and that it was then being used on another job and could not be moved until completion of that job. Delay in completing that job delayed starting the new one until June 4, and after work started underground conditions necessitated switches of drilling methods. The well was completed August 19, but *could not be used until eight days later because the landowners did not complete a pipeline* through which the water was to flow to an irrigation ditch lateral.

What the Court decided:

In upholding the decision rendered by the district court of Scottsbluff County, the Nebraska Supreme Court declared:

The requirement in the contract that the well be completed "as quickly as possible" merely meant that the job would be finished "with all reasonable diligence or without unreasonable delay." It did not mean that the work would be done *immediately* or that the drilling company would drop other jobs and devote itself to this job.

There was no implied obligation to complete the well for use for the forthcoming irrigation season. All that the driller was bound to do was to commence work on or before May 25 and complete the job "as quickly as possible." The company broke the contract by not starting work until ten days after May 25, but the work moved as quickly after that as was reasonably possible.

No damages could be awarded for this breach, because no use could be made of the well until the pipeline was completed and defendant failed to prove any damage which was not chargeable to delay in completing the pipeline.

Arthur L. H. Street.

WIDEST CAPACITY RANGE

FROM A COMPREHENSIVE LINE OF VERTICAL AND HORIZONTAL PUMPS

Peerless offers 2 to 220,000 gallons per minute

A tapful or a torrent! No matter what your water capacity requirements are, Peerless can meet your pumping needs.

Fractional hp horizontals, like the Peerless "Fluidyne" pumps handling cooling-jacket water in the inset above, furnish a few gallons a minute. The huge Peerless mixed-flow pumps in the larger photo, pump away drainage water at a rate of tens of thousands of gallons a minute.

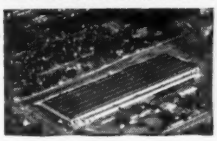
Widest capacity range is but one of a host of reasons why industries, municipalities and commercial businesses plan with Peerless for all their needs for pumps. Here are others:

ALL PRACTICAL HEADS: Lifting water from 1000 feet or more is a practical accomplishment of Peerless vertical deep well pumps. Pumping against heads of 690 feet is a common task for Peerless horizontal centrifugal pumps.

ALL TYPES OF DRIVE: Electric motor, right angle gear, engine, belt (V or flat) or combinations of the above, are all available from Peerless, with pump and driver engineered as a unit.

MODERN DESIGN: Peerless pumps are designed for top flight performance over extended periods of time. And the practical consideration of ease of maintenance is figured in to their functional, good looking design.

NEW PEERLESS INDIANAPOLIS PLANT IS DEVOTED ENTIRELY TO PUMP PRODUCTION & SERVICE



Here is one of America's newest pump plants—19 acres of modern manufacturing facilities devoted to precision production of horizontal and vertical pumps, located at Indianapolis. Plan with Peerless for pumps plus fast, comprehensive pump service.

NATIONWIDE SERVICE: Peerless sales and field service are available in all principal U. S. cities and abroad. Plan with Peerless for all your pumping needs. Individual bulletins on all types of Peerless Pumps are available upon request.

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Peerless
VERTICAL AND HORIZONTAL
Pumps

Drillers' Report . . .

(Continued from page 9)

mailing list as of Aug. 28, 1949. This projection is confined to *The Driller's* domestic circulation only and does not include foreign readership.

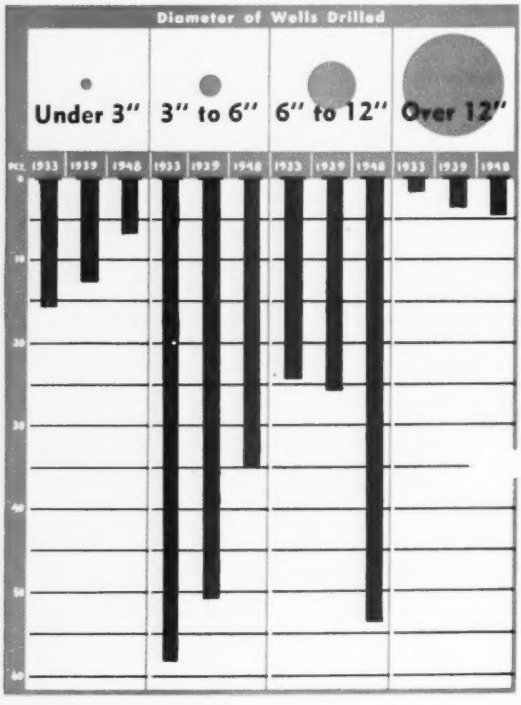
48.4 Wells Per Driller

We asked how many wells you drilled in 1948. A total of 35,737 was reported by the 733 drillers replying, an average of 48.4 wells per driller. Projection of this figure indicates that 314,467 wells were drilled in 1948. The outlook for 1949, as shown by the survey, was generally optimistic. The 608 drillers reporting indicated that they expected to drill a total of 31,151 wells during the course of the year, an average of 51 wells per driller. Extending this figure to cover the entire industry, it is estimated 328,644 wells will have been drilled by year's end.

As in 1939, wells drilled for homes or for farm purposes were in majority, accounting for 80.5% of all wells drilled in 1948. Industrial wells made up 8% of the total, the balance being comprised of town or village wells (6.3%), mine prospecting (3.6%), oil or gas wells (.8%), and miscellaneous blast holes and irrigation wells (.8%).

Once again, too, a majority of the wells drilled throughout the country were of medium depth. Results of the survey, however, show a decided shift from the drilling of the deeper wells, ranging from 500 to 1,000 feet in depth. The percentage of drillers reporting average depth of wells within the various ranges for 1939 and 1948 looks like this:

	Percentage 9 years ago	*Percentage Today*
Under 50'	2.9	3.4
Over 50' to 100'	33.0	35.6
Over 100' to 200'	35.9	41.8
Over 200' to 500'	18.2	15.6
Over 500' to 1,000'	5.0	2.5
Over 1,000'	5.0	1.1



The trend in modern water well construction toward the larger diameter well is more pronounced than ever before, judging from the survey results. Drilling contractors replying to our questionnaire indicated that, at the present time, approximately three out of every five wells drilled are over six inches in diameter.

A tremendous gain was made in the percentage of drillers putting down wells ranging from 6 to 12 inches in diameter, which jumped from 24.1% of the total in 1934 to 25.9% in 1939 and to 53.7% in 1948. The number of wells over 12 inches in diameter continued to climb, too, jumping from 1.9% in 1934 to 3.6% in 1939 to 6.9% in 1948.

On the other hand, results show that fe drillers are putting down

wells of three to six inches or in the under-three-inch classification. The former size well dropped from 58.5% of the total in 1934 to 57.9% in 1939 and to 34.9% in 1948, while the latter size well declined from 15.5% of the 1934 total to 12.6% and to 6.9% in 1948.

Handling Pump Installations

One of the most interesting facts brought out by the survey is the number of pump installations being sold by drilling contractors for wells drilled by them. To our question *"On how many of these wells did you sell the pump installation?"* replies show that 72.1% of the drillers reporting handled pump installations during 1948. A further breakdown of this figure shows a total of 13,849 pump installations reported through this survey, an average of 19.6 per driller. The replies of 492 drillers (75% of those reporting) indicated they also serviced the pumps installed.

Influencing Choice of Pumps

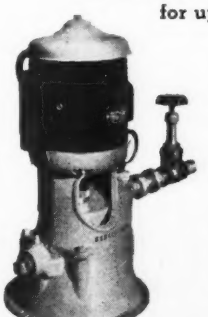
Where the driller did not sell the pumping equipment for a well, survey results show that he often influenced the sale. Answers to our question *"When you do not furnish the pump on a well, what percentage of your customers ask your advice about the kind and make of pump to buy?"* show 67% influence the purchase even when they do not sell the pumping equipment.

The question *"How many water well drills do you own?"* brought out the fact that 48.6% of the drillers own one drill, 30% own two, and 21.5% own from three to six or more rigs. These figures indicate the presence of over 14,000 drilling rigs in the industry during 1948.

In the December issue we will present the figures on 1948 expenditures as reported in our survey replies.

Now you can sink a jet 300 feet down...
if it's a
BERKELEY
2-STAGE
EXTRA-DEEP JET PUMP
Promise your customers dependable performance from levels down to 300 feet

New jet design and higher motor speed—features of these new 2-Stage Berkeley Pumps—produce maximum performance with lowest horsepower requirements. The Berkeley Extra-Deepwell Jet Pumps develop higher pressures at shallower settings...are ideal for uphill pumping jobs.



Let us send you a table of performances for this new Extra-Deepwell Series. See for yourself how these BERKELEY Pumps can solve your customers' deepwell water problems economically and efficiently.

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Macwhyte Hi-Lastic's "built-in" elasticity allows tools to strike sharp, hard blows. It keeps the bit turning better . . . reduces tendency for the hole to get out of round and for the bit to channel. Like all Macwhyte's Wire Lines, Macwhyte "Hi-Lastic" Line is internally lubricated. Circular lists and describes all Macwhyte Cable Tool Drilling and Sand Lines.

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Get the correct line for your equipment from

MACWHYTE COMPANY

2939 Fourteenth Avenue, Kenosha, Wisconsin, or any authorized Macwhyte Distributor or Mill Depot

Deep Well Irrigation Favorable in Idaho

WATER is wealth to the West. This is particularly true in southern Idaho where apparently inexhaustible supplies of underground water are bringing new life to desert areas. As a result, dry land farmers near Rupert, Idaho, far from streams of any kind, see promise of prosperity through the use of deep wells.

One of these farmers is Julion Clawson, formerly a newspaperman in Salt Lake City, Utah, and now a pioneer in deep well irrigation. Clawson owns 20,000 acres of land on the Great Snake River lava plain in southern Idaho.

Three years ago, Clawson had intended to try dry farming on a large scale. But, as he searched for the right location to settle, he considered the possibility of irrigating his crops by using underground water supplies.

Clawson found nine wells on his property which were used by the previous owners to provide limited supplies of culinary water only. He drilled five of them to a depth of about 500 feet.

Today, Clawson has 20,000 gallons of water per minute flowing all during the irrigation season. Sixty miles of ditch serve his fields of potatoes, certified clover, grains, and grass. Last year, he had 3,820 acres under cultivation.

The U. S. Bureau of Reclamation is now showing interest in the underground water supply. The agency has drilled three test wells near Rupert, to an approximate depth of 300 feet. If the tests are successful, bureau engineers expect other wells will be put down to irrigate 63,500 acres on the nearby Minidoka reclamation project.

Editorial . . .

(Continued from page 10)

and discharges. Runoff was subnormal over a large part of the West. The flow of the Colorado and Columbia Rivers was subnormal.

According to the bulletin, water levels in 13 observation wells near Havre, Mont., were lower in August than any previous August during the period of record. In northern Arizona, measurements made in approximately 50 observation wells showed water levels normal.

Bigger Wells . . .

(Continued from page 7)

ner poultry farm near Angola, to replace an old 2-incher that had "gone dry." Downer's deepest well was a 304-footer.

The depth of a well is a determining factor in selling the job since all Downer's work is done on a price-per-foot basis. The average charge for a 4-in. well is $3.50 to $4 per foot, based on a pre-arranged agreement between the driller and the customer.

The final point in Downer's constructive selling program is to leave the farmer with the assurance that the last few dollars of extra cost invested in his water system will be the most economical in the long run. An adequate supply of running water and profit go hand-in-hand, paying off in increased milk, meat and egg production. Better health and sanitary features in the home are the farmer's too.

In this program Downer assures his customers that he can and will service pumps and water systems. He has three trucks, and gets needed repairs done when the customer's water system needs them most — getting the system in working condition again with the least possible delay.

Dependable, low-cost performance of the Deming Fig. 1062 "OIL-RITE" Deep Well Water System is assured with the following important features:

1. ***Splash and Force Feed Oiling System*** assures positive lubrication without an auxiliary oil pump.
2. ***Helical Cut Gears*** are long wearing and quiet in operation.
3. ***Adjustable Crosshead Guides*** have exceptionally large wearing surfaces.
4. ***Removable Crosshead Lug*** permits withdrawal of plunger and lower valve without disturbing pump or pipe connections.
5. ***Brass Cased Plunger Rod*** has long wearing qualities.

Capacities range from 190 to 3635 gallons per hour. Write for complete information about the Deming Fig. 1062 "OIL-RITE" Water System.

THE DEMING COMPANY
512 BROADWAY • SALEM, OHIO

DEMING
THE COMPLETE LINE
PUMPS AND WATER SYSTEMS

Bargain Counter

All advertising in this section is payable in advance. Enclose your check or money order with copy. Rate: 30c per line. Minimum charge $1.20. No discounts; no commissions. Count your own copy to avoid delay. The average line contains 28 characters (20 characters if all capital letters are used). Count spaces and punctuation as one character each. Allow 10 characters for box number if blind advertisement is desired. Closing date—10th of preceding month. Example — January issue closes December 10th. Be sure to address separate inquiries to each advertiser by using the correct box numbers. Mail Box inquiries care of THE DRILLER, South Milwaukee, Wis.

DRILLS FOR SALE

Bucyrus-Erie 22-W trailer mounted Type E. Equipped with drilling lines, sand lines, casing reel, rubber sheaves, spooling device. Full line of drilling tools. Equipped with butane. 1947 1½-ton Chevrolet truck with Hobbs Oil Field body and winch. Buck Nosker, Glencoe, N. M. Phone 8-04, Rudioso, N. M.

Bucyrus-Erie 24-L, gasoline engine, catheads, semi-trailer mount, two years old, no tools. For sale or trade for 36-L. Rig near Dubuque, Iowa. Box 317

National Rotary Pulldown 19x2 model. Includes 4½x6 high pressure pump in good condition; 600-ft. new inrod drill stem; table; bowl and slips; two core barrels, 3" and 4¼"; 15 or 20 bits. Price complete, $2500. Young Drilling Co., P. O. Box 5294, Sonora, Texas.

DRILLS FOR SALE

220 Howell Special, semi-trailer mounted with casing reel, cat heads and level wind. Machine is in very good condition and complete with all tools to go to work. Will take highest offer up to Dec. 1st, or will trade for a Bucyrus-Erie 22-W with same equipment.

Also 21-W Bucyrus-Erie mounted on International 1½-ton truck, will sell with or without tools and truck.

Box 314

Steel frame drill, similar to Bucyrus-Erie 23-P. 33 ft. telescoping derrick with Bucyrus-Erie rubber shock absorber and tubular braces. Machine mounted on 1939 Chevrolet truck. Machine and truck good condition. Operating every day. Reason for selling, too small for our territory. Write or phone Lyons Well Drilling Company, Stockton, Illinois. Phones: 295 or 388.

Kirk Hillman drill mounted on cat tracks; goes where truck-mounted rig can't go. New condition. Complete tools. New, all-steel trailer, two sets dual wheels, electric brake for highway moving; Lincoln portable welder for bit dressing and pipe welding on job; miscellaneous tools, etc. Sacrifice all for $4,000 or will separate. Write Box 87, Ely, Minn.

Bucyrus-Erie 21-W mounted on 4-Wheel Drive truck. Machine about 2 years old and in excellent condition. Also one 4x12 drill stem and wire line swivel socket with 2x3—7 API joints. Priced for quick sale. Call or write: Joe Mader, 4654 N. 29th St., Milwaukee, Wis. Telephone Custer 3-2520.

Bucyrus-Erie 22-W, excellent condition, mounted on very good 1941 Chevrolet with 2-speed axle. This machine is equipped with spooling device, casing reel, slack line holder and power hoist on derrick. Cost over $5,000, will sell for $3,400. Earl Acker, Rt. 14, Box 632, Milwaukee 14, Wis. (Bluemound Rd. at 130th St.)

DRILLS FOR SALE

One 35 Armstrong drilling machine mounted on good International truck complete with 6" tools. Price $1850 FOB Cincinnati, Ohio.

Three Bucyrus-Erie drilling machines 22-W. Trailer type mounting. All three are practically new. Price $3850 each without tools or $4250 each with complete set of 6" tools.

One Bucyrus-Erie 24-L equipped with spooling device, casing reel, 48' derrick with extra section for casing tackle. Mounted on extra heavy three-ton truck. Excellent condition. Priced reasonably.

Tools for sale: Bits, ranging in size from 24" down to 6"; trip pipe spears, size 16" down to 6"; pull rings, size 16" down to 6"; and long stroke jars and drilling jars, some new, size 2¾ to 3⅞ with seven thread.

Right angle drive to pump water with gasoline driven motor direct with universal joints. Pumps up to 1000 G.P.M.

Two 40 H.P. electric turbine motors. One, 25 H.P. One, 20 H.P. One 15 H.P. Cheap prices on all these items.

Sixty 10' Armco iron screens. One 300 amp. Wilson gasoline welding machine. One 210' gasoline air compressor. Priced reasonably. Acme Well Drilling Company, 3201 Golden Avenue, Cincinnati — 26 — Ohio.

Bucyrus-Erie 21-W drill, mounted on 1937 Dodge 1½ ton truck. Derrick 31½' with 8 point pipe braces and rubber shock absorber. 400' each, ⅝" drilling cable and ¾" sand line. Machine and truck excellent condition. Located near Milwaukee. Write Box 315.

National Rotary Pulldown. 19 x 2 model. Includes 4½ x 6 high pressure pump in good condition; 600-ft. new inrod drill stem; table; bowl and slips; two core barrels, 3" and 4¼"; 15 or 20 bits. Price complete, $2500. Young Drilling Co., P. O. Box 5294, Sonora, Texas.

(continued on page 29)

DRILLS FOR SALE

(continued from page 28)

Practically new, Bucyrus-Erie 22-W, type EB semi-trailer with dual pneumatic tires, mechanical brakes operated from cab, steel wheels on front with trailer bracket. Also the following variable equipment: 1 set rubber cushioned heel & spudding sheaves; 1 spooling device for bull reel; 1 casing reel with derrick head sheaves; 1 cathead attachment (dual catheads) including derrick sheave blocks. Complete with tools and cable if wanted. Write Armstrong Mfg. Co., Waterloo, Iowa.

Failing 1500′ capacity drill, complete, drill rod, bits, tools, etc.; this equipment will pay for itself in 90 days. Price $6500. Box 1832, Casper, Wyo.

One 3½ Keystone machine mounted on Gilder truck, pneumatic tires, with or without tools, price $2000. Box 313

Business for Sale

Well established well drilling and pump business in central Wisconsin. Modern Bucyrus-Erie equipment including full line of drilling and fishing tools for 4" to 24" wells. Also trucks, forges and everything to make up a complete well drilling and pump service. A real opportunity. Box 282

Used water well drilling machines. "Shurhit," Bucyrus-Erie and other makes. Write, wire or see them at the Burton Welding Company, G-4456 So. Dort Hwy., Flint 7, Michigan. Phone Shop 4-1483, Res. 4-7747.

DRILLS FOR SALE

Keystone 70 mounted on 1936 Federal truck with complete string of tools. Motor recently overhauled. Ready for immediate sale. Price $2,000. J. D. Korkes, Box 244, Highland Ave., Whippany, N. J., Phone 8-0030W.

One 1½ Keystone machine mounted on White truck, solid tires, with or without tools. Price $1250. Box 312

Bucyrus-Erie 24-W drilling machine mounted on 2½-ton Diamond T truck. Machine is powered by U6 International power unit, complete with derrick hoist, cat heads, hoisting drum, etc., machine and truck in good condition. Hoeg & Ames, Lincoln, Iowa.

Star drill No. 71 complete with truck and cables. Reasonably priced, good condition. Stevens-Southern Company, 2555 West Beaver St., Jacksonville, Fla.

Completely rebuilt Ideco 16 with power derrick hoist. Hoist operates off power take-off—'47 Chevrolet truck with two speed transmission, 11,000 miles. With tools, ready to run. Box 311

No. 71 Speed Star, semi-trailer mounted, 15 months old. A-1 shape. 40 ft. derrick, casing reel. With or without 6" and 8" drilling tools. Telephone or write—Harold E. Dorsey, Box 134, Ripon, Wisconsin.

Bucyrus-Erie 23-P well drill in good running order. Mounted on 1939 International 1½-ton truck in good shape. Price $2000, without tools. Peter Pilgard, Palatine Road, Arlington Heights, Illinois.

MISC. FOR SALE

10,000 ft. of 5-3/16" I. D. T & C 14 lb. casing.
10,000 ft. of 6⅝" I. D. T & C 17 lb. casing.
5,000 ft. of 8¼" I. D. T & C 24 lb. casing.
All of the above pipe is in excellent condition, ready for immediate delivery by truck or railroad car.
This pipe is priced to sell.
No order too small to get our immediate attention.
Write, Wire or Phone
THE INTERSTATE PIPE & SUPPLY COMPANY, MARIETTA, OHIO PHONE 2468

One 2-ton Hydrocrane with clamshell digging bucket, mounted on 1½-ton Chevrolet truck. Completely reconditioned, guaranteed. Ideal for digging slush pits, septic tank and cesspool work. For information in detail, contact J. P. Waite, Inc., 3304 W. Pierce Street, Milwaukee, Wisconsin.

WANTED

Wanted: Bucyrus-Erie 21-W or K2W Loomis or any other small drill. Box 158, Bradley, Ill.

POSITION WANTED

Wanted steady work by experienced driller. Foot or hour basis. Box 316

HELP WANTED

Rotary driller for water well work in East. Write salary expected and qualifications. Reply to THE DRILLER, South Milwaukee, Wisconsin, Box 318.

Portable Threader

A NEW portable pipe threader, called the "Porta-Drive," has recently been announced by the Muncie Gear Works, Inc., Muncie, Ind. Muncie claims that one man operating the machine can thread up to 6-in. pipe on the job and that the new unit can be used in any position — horizontal, vertical, or on an angle.

The manufacturer claims further that the pipe threader fits any ½-hp heavy-duty electric drill and attaches to any standard set of dies by specially designed adaptor-yokes.

Twist Appointed

FOOD Machinery and Chemical Corp., San Jose, Calif., recently announced the appointment of Gerald F. Twist as manager of the firm's Peerless Pump division. Twist, who takes over the duties of Francis F. Fairman, Jr., will make his headquarters at Los Angeles.

WIT BITS

She: "Don't you think dancing makes a girl's feet larger?"

He: "Yes."

She: "I rather think swimming gives a girl awfully big shoulders, don't you?"

He: "Yeah."

Pause.

He: "You must ride quite a bit, too."

Two boys who were returning on the street car from Sunday school a few days after Christmas were discussing the lesson of the morning: "Do you believe all that stuff about the devil?" one asked. "Naw," replied the other boy. "It's just like Santa Claus; it's your old man."

Guest (phoning down from his hotel room): "Is this the desk clerk?"

Clerk (in bad humor): "Well, what's eating you now?"

Guest: "That's what I'd like to know."

"Are you positive the defendant was drunk?" asked the judge.

"No doubt about it," growled the arresting officer.

"Why are you so certain?"

"Well," replied the officer, "I saw him put a penny in the mail box, look up at the clock on the city hall and shout: 'By Gad, I've lost fourteen pounds!' "

Frank: "They say Jim's wife had triplets after reading *The Three Musketeers.*"

Will: "Good heavens, mine was reading *The Birth of a Nation* when I left."

When the driller's little girl came home after a holiday at her grandmother's, she found that triplets had been added to the family.

"How silly of you, mummy," she said. "You should have done the ordering—you know how daddy stutters."

A retired driller had been stopping at a resort hotel and was paying his bill. He looked up at the cashier and asked what it was she had around her neck.

Cashier: "A ribbon, of course. Why?"

Driller: "Well, everything else is so high around here, I thought perhaps it was your garter."

In the dark of night two safebreakers entered a bank. One approached the safe, sat down on the floor, took off his shoes and socks, and started to turn the dial of the safe with his toes. "What's the matter?" said his pal. "Let's open this thing and get out of here."

"Naw, it'll only take a minute longer, and we'll drive them fingerprint experts nuts."

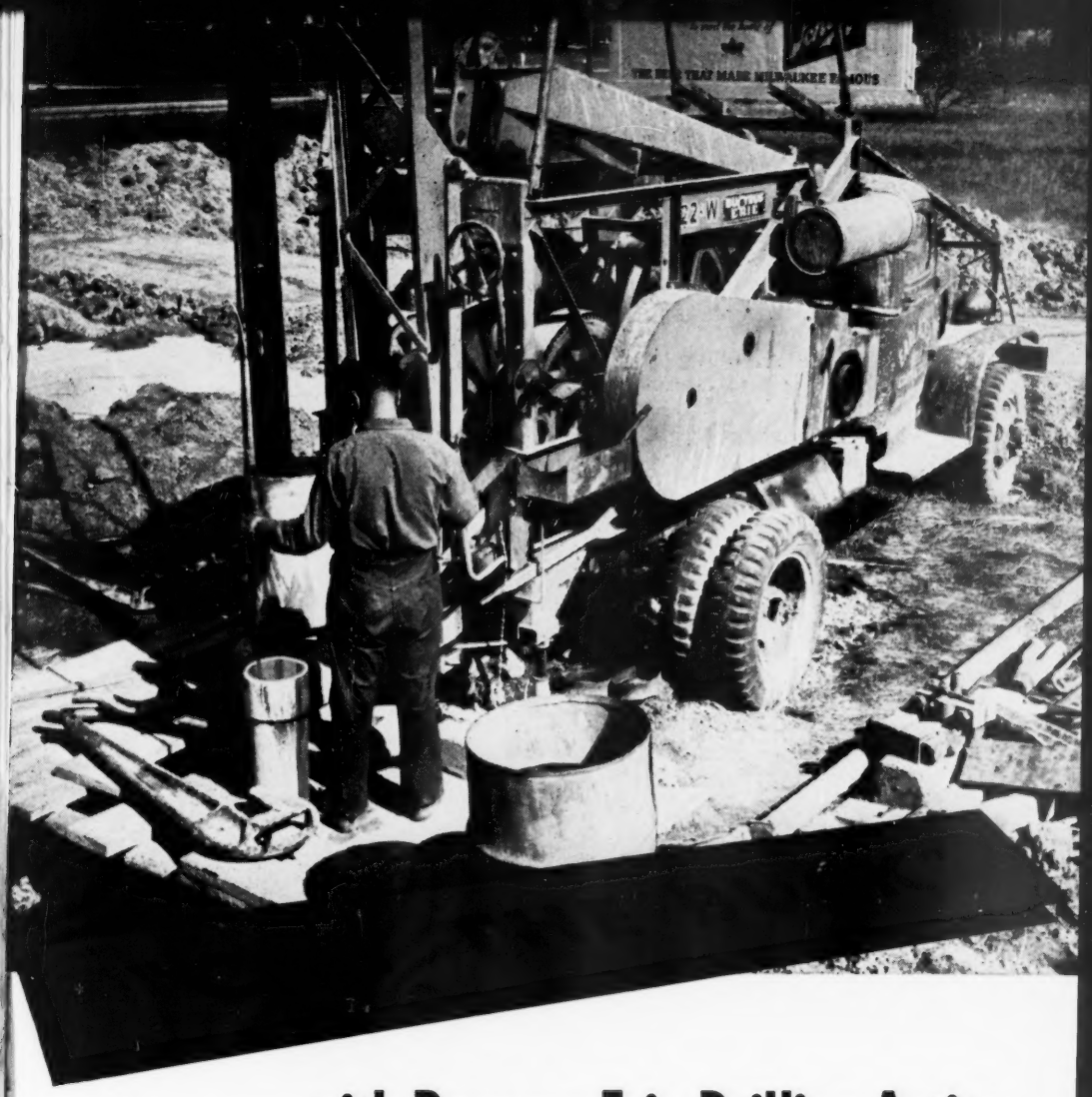
A deacon in a church was seriously ill. He was a popular man, so a bulletin was posted at the church door regarding his condition. It read:

"One o'clock. Deacon Jones very ill.

"Two o'clock. Deacon Jones worse.

"Three o'clock. Deacon Jones dead."

A visitor read the bulletin and added: "Seven o'clock. Great excitement in heaven; Deacon Jones not yet arrived. The worst is feared."



with Bucyrus-Erie Drilling Action

FOR rapid, shattering tool blows that cut extra footage every shift, you can't beat Bucyrus-Erie drilling action.

The smooth, rhythmic drilling motion of Bucyrus-Erie drills features an efficient rubber shock absorber located in the derrick head and a unique arrangement of the spudding gear and pitman which kicks the spudding beam "out from under" the drill line, permitting a fast free drop of the drilling tools.

Cut yourself in on a larger slice of drilling profits by selecting any of these hole-making models—20-W, 22-W, 24-L, and 28-L.

BUCYRUS ERIE

SOUTH MILWAUKEE, WISCONSIN

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The **DRILLER**

A journal for water well drillers

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